

YSTEM:OS - DIALOG OneSearch

File 349:PCT FULLTEXT 1983-2002/UB=20020411,UT=20020404

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File 440:Current Contents Search(R) 1990-2002/Apr 18

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File 453:Drugs of the Future 1990-2002/Mar

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File 390:Beilstein Online

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\*File 390: IMPORTANT - Price based on output. See HELP RATES 390.

File 107:Adis R&D Insight 1986-2002/Apr W2

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File 128:PHARMAPROJECTS 1980-2002/Apr W1

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\*File 128: New Therapeutic Class Codes are introduced.

See Help News128 for further information.

File 342:Derwent Patents Citation Indx 1978-01/200210

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\*File 342: Price changes as of 1/1/02. Please see HELP RATES 342.

File 345:Inpadoc/Fam.& Legal Stat 1968-2002/UD=200214

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File 348:EUROPEAN PATENTS 1978-2002/APR W01

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File 399:CA SEARCH(R) 1967-2002/UD=13616

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\*File 399: Use is subject to the terms of your user/customer agreement.

RANK charge added; see HELP RATES 399.

Set Items Description

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Cost is in DialUnits

?ds

Set Items Description

S1 34 VI/TI AND TYPHI/TI AND (REPA OR EXOTOXIN OR PSEUDOMON? OR -  
EPA)/TI

S2 17 RD (unique items)

?t s2/3/12 13 14 15 16 1

**2/3/12 (Item 1 from file: 107)**

DIALOG(R) File 107:Adis R&D Insight

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00126603 016009

**DRUG NAME:** Typhoid vaccine conjugate - National Institutes of  
Health

RECORD REVISION DATE: 20010703

SYNONYMS: Vi - rEPA

WHO ATC CODE: J07A-P03 - Typhoid, purified polysaccharide antigen

EPHMRA ATC CODE: J7A4 - Typhoid and paratyphoid

MECHANISM OF ACTION: Immunostimulants; Immunomodulators

ORIGINATOR COMPANY: Nonindustrial source (USA)

PARENT COMPANY: Nonindustrial source

HIGHEST PHASE: Phase III

DEVELOPMENT STATUS: Phase III, Vietnam, Typhoid

#### TEXT

##### Introduction:

Researchers at the US National Institutes of Health are developing a vaccine against *Salmonella typhi*, the causative agent of typhoid fever. The vaccine (Vi - rEPA) consists of the bacterium's purified capsular polysaccharide (Vi) conjugated with non-toxic, recombinant *Pseudomonas aeruginosa* exotoxin A (rEPA). A large-scale phase III clinical trial of the conjugate vaccine was initiated in early 1998 in Vietnamese children

aged 2-5 years; vaccine efficacy was 92% with virtually no side effects. The NIH researchers intend to conduct a clinical trial of the vaccine in children under the age of 2 years; if efficacy is high in this group, the vaccine could eventually be administered routinely in the paediatric vaccination schedule.

Currently licensed typhoid vaccines have approximately 70% efficacy, are not protective in young children and are not employed for routine vaccination. Two of the researchers involved in the development of the **Vi - rEPA** conjugate vaccine, Drs John Robbins and Rachel Schneerson, were major players in the development of conjugate vaccines against *Haemophilus influenzae* type B (Hib); routine use of these vaccines since the late 1980s has almost eliminated Hib disease from the developed world.

#### ADIS EVALUATION:

Typhoid 72 (IM).

#### PHARMACOLOGY OVERVIEW:

Mechanism of action:

Immunostimulants

Immunomodulators

#### CLINICAL OVERVIEW:

Route(s) of Administration: IM

Adverse events:

occasional: Fever, Injection site reactions.

2/3/13 (Item 1 from file: 128)

DIALOG(R) File 128: PHARMAPROJECTS

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0029773

DRUG NAME: Salmonella vaccine, NIH

ORIGINATOR: NIH (USA) [No Development Reported]

SYNOMYS: **Vi - rEPA** conjugate

TEXT: The NIH was developing a Salmonella vaccine comprising the capsular polysaccharide of *Salmonella typhi*, **Vi**, conjugated to non-toxic recombinant exoprotein A from *Pseudomonas aeruginosa*.

#### Clinical

In adults, children aged 5-14yr and children aged 2-4yr, the vaccine produced increases in anti- **Vi** IgG of 48-, 252- and 400-fold.

#### Licensing

A US patent was filed (DHHS ref E-020-9/0) and the technology is available for licensing. For further information, contact Robert Benson, PhD, Office of Technology Transfer, NIH, 6011 Executive Boulevard, Suite 325, Rockville, MD 20852-3804, the US; Tel: 301-496 7057, ext 267; Fax: 301-402 0220; E-mail: rb20m nih.gov (Direct communication, NIH, 12 Jul 1999). Entered by GF on 1/9/1999.

STATUS: (Ceased)

World	No Development Reported
Argentina	Available for Licensing
Australia	Available for Licensing
Austria	Available for Licensing
Belgium	Available for Licensing
Brazil	Available for Licensing
Canada	Available for Licensing
Chile	Available for Licensing
China	Available for Licensing
Colombia	Available for Licensing
Denmark	Available for Licensing
Finland	Available for Licensing

France	Available for Licensing
Germany	Available for Licensing
Greece	Available for Licensing
Hong Kong	Available for Licensing
India	Available for Licensing
Ireland	Available for Licensing
Israel	Available for Licensing
Italy	Available for Licensing
Japan	Available for Licensing
Luxembourg	Available for Licensing
Malaysia	Available for Licensing
Mexico	Available for Licensing
Netherlands	Available for Licensing
New Zealand	Available for Licensing
Norway	Available for Licensing
Peru	Available for Licensing
Philippines	Available for Licensing
Russian Federation	Available for Licensing
Portugal	Available for Licensing
South Africa	Available for Licensing
Spain	Available for Licensing
South Korea	Available for Licensing
Sweden	Available for Licensing
Switzerland	Available for Licensing
Thailand	Available for Licensing
Turkey	Available for Licensing
UK	Available for Licensing
USA	Clinical Trial/Available for Licensing
Venezuela	Available for Licensing

THER. CLASS: T2B (Recombinant vaccine)  
               J7A1 (Prophylactic vaccine)

ORIGIN: NP-B (Natural product, bacterial)

RTE OF ADMIN:UN (Unknown)

INDICATIONS: Infection, Salmonella prophylaxis N No Development Reported

PHARM. CODE: IM-AG, Physiological, Hormonal, Immunostimulant, Immunogenic agent , P-H-IM-AG

Therapy Pharmacology

LINKING:		Status
	T2B IM-AG	No Development
	J7A1 IM-AG	Reported No Development
		Reported

LATEST UPD: 20010130 (IL) No development reported

UPDATED: 19990901 (Est) New Product (Worldwide)

19990901 (Est) Licensing Opportunity (Worldwide)

20010130 (Act) No Development Reported

REVISED: 20010202; 2001

2/3/14 (Item 1 from file: 342)

DIALOG(R) File 342:Derwent Patents Citation Indx

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04281763 WPI Acc No: 00-423231/36

Use of a molecular conjugate of *Salmonella typhi* Vi polysaccharide covalently bound through a carboxylic acid dihydrazide linker to *Pseudomonas aeruginosa* exoprotein A to protect against infection with *Salmonella typhi* -

Patent Assignee: (USSH ) US DEPT HEALTH & HUMAN SERVICES

Author (Inventor): KOSSACZKA Z; SZU S C; ROBBINS J B

Patent (basic)

Patent No	Kind Date	Examiner	Field of Search
WO 200033882	A1 000615 (BASIC)		

Derwent Week (Basic): 0036

Priority Data: WO 98US25746 (981204); AU 9916261 (981204)

Applications: WO 98US25746 (981204); AU 9916261 (981204)

Designated States

(National): AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; UA; UG; US; UZ; VN; YU; ZW

(Regional): AT; BE; CH; CY; DE; DK; EA; ES; FI; FR; GB; GH; GM; GR; IE; IT; KE; LS; LU; MC; MW; NL; OA; PT; SD; SE; SZ; UG; ZW

Derwent Class: B04; D16

Int Pat Class: A61K-047/48

Number of Patents: 002

Number of Countries: 083

Number of Cited Patents: 000

Number of Cited Literature References: 003

Number of Citing Patents: 000

**2/3/15 (Item 1 from file: 345)**

DIALOG(R) File 345:Inpadoc/Fam.& Legal Stat

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16008648

Basic Patent (No,Kind,Date): WO 200033882 A1 20000615 <No. of Patents: 002>

**A VI-REPA CONJUGATE VACCINE FOR IMMUNIZATION AGAINST SALMONELLA TYPHI (English)**

Patent Assignee: US HEALTH (US); KOSSACZKA ZUZANA (SK); SZU SHOUSUN CHEN (US); ROBBINS JOHN B (US)

Author (Inventor): KOSSACZKA ZUZANA (SK); SZU SHOUSUN CHEN (US); ROBBINS JOHN B (US)

Designated States : (National) AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; UA; UG; US; UZ; VN; YU; ZW (Regional) GH; GM; KE; LS; MW; SD; SZ; UG; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

Filing Details: WO 100000 With international search report

IPC: \*A61K-047/48;

CA Abstract No: \*133(03)029609F; 133(03)029609F

Derwent WPI Acc No: \*C 00-423231; C 00-423231

Language of Document: English

Patent Family:

Patent No	Kind	Date	Applic No	Kind	Date
AU 9916261	A1	20000626	AU 9916261	A	19981204
WO 200033882	A1	20000615	WO 98US25746	A	19981204 (BASIC)

Priority Data (No,Kind,Date):

WO 98US25746 A 19981204

**2/3/16 (Item 1 from file: 348)**

DIALOG(R) File 348:EUROPEAN PATENTS

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01177305

**A VI - REPA CONJUGATE VACCINE FOR IMMUNIZATION AGAINST SALMONELLA TYPHI  
VI - REPA KONJUGIERTE IMPFSTOFF ZUR IMMUNISIERUNG GEGEN SALMONELLA TYPHI**

**CONJUGUE VACCINAL VI - REPA POUR L'IMMUNISATION CONTRE LA SALMONELLA  
TYPHI**

PATENT ASSIGNEE:

THE GOVERNMENT OF THE UNITED STATES OF AMERICA, as represented by THE SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES, (304191), National Institute of Health, Office of Technology Transfer, 6011 Executive Boulevard, Suite 325, Rockville, MD 20852-3804, (US), (Applicant designated States: all)

INVENTOR:

KOSSACZKA, Zuzana, Narcisova 52, 821 01 Bratislava, (SK)  
SZU, Shousun, Chen, 9402 Wildoak Drive, Bethesda, MD 20814, (US)  
ROBBINS, John, B., 3901 Rosemary Street, Chevy Chase, MD 20815, (US)

PATENT (CC, No, Kind, Date):

WO 0033882 000615

APPLICATION (CC, No, Date): WO 98960734 981204; WO 98US25746 981204

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;

LU; MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: A61K-047/48

LANGUAGE (Publication, Procedural, Application): English; English; English

2/3/1 (Item 1 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00570509

A VI - REPA CONJUGATE VACCINE FOR IMMUNIZATION AGAINST SALMONELLA TYPHI  
CONJUGUE VACCINAL VI - REPA POUR L'IMMUNISATION CONTRE LA SALMONELLA  
TYPHI

Patent Applicant/Assignee:

THE GOVERNMENT OF THE UNITED STATES OF AMERICA as represented by THE  
SECRETARY DEPARTMENT OF HEALTH AND HUMAN SERVICES,

KOSSACZKA Zuzana,

SZU Shousun Chen,

ROBBINS John B,

Inventor(s):

KOSSACZKA Zuzana,

SZU Shousun Chen,

ROBBINS John B,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200033882 A1 20000615 (WO 0033882)

Application: WO 98US25746 19981204 (PCT/WO US9825746)

Priority Application: WO 98US25746 19981204

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES  
FI GB GD GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV  
MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG  
US UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT  
BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA  
GN GW ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 11108

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\$0.15 0.031 DialUnits File349  
\$1.60 1 Type(s) in Format 3  
\$1.60 1 Types  
\$1.75 Estimated cost File349  
\$0.27 0.015 DialUnits File440  
\$0.27 Estimated cost File440  
\$0.11 0.015 DialUnits File453  
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\$1.70 1 Type(s) in Format 3  
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\$1.84 Estimated cost File348  
\$0.19 0.015 DialUnits File399  
\$0.19 Estimated cost File399  
OneSearch, 10 files, 0.231 DialUnits FileOS  
\$0.21 TELNET  
\$50.36 Estimated cost this search  
\$50.36 Estimated total session cost 0.231 DialUnits

### Status: Signed Off. (1 minutes)